

DETAILED ACTION

REASON FOR ALLOWANCE

Claims 1-14 are allowed.

The following is an examiner's statement of reasons for allowance: The present invention is directed to a method for modifying a stream of multimedia content to implement trick mode playback on a playback device.

The independent claims 1, and 8 are identifies the uniquely distinct feature for "setting a discontinuity indicator in an adaptation field associated with a video frame to disable a frequency adjustment of a synchronization circuit; and setting a substitute program clock reference (PCR) value in the adaptation field to facilitate playback of the multimedia stream on the playback device in accordance with a desired trick mode"

Morris et al., US 7,313,315 discloses broadcast data received in MPEG Transport Stream format (TS) is processed (8) to produce a modified transport stream for recording on an optical disc (3) to record the content of a selected audio-visual program. Various techniques are disclosed for permitting random access within the recording, but without re-packetizing or remultiplexing the audio and video elementary streams, for example into program stream format. The received TS (DVIN) occasionally includes stream mapping information (PAT/PMT) identifying a transport packet ID code associated with each elementary stream, said stream mapping information being subject to change throughout the received TS. The packet IDs in the modified transport stream can be re-mapped to a uniform set of values to permit random entry to the

recorded stream. Alternatively, the current stream mapping information may be inserted at every potential entry point in the modified stream. Characteristic point information (CPI) defining a set of potential entry points throughout the stream is generated by parsing the received stream, and recorded in a separate file to facilitate location of entry points on the disk. Entry points may for example comprise all I-pictures, or a subset of them. Clock reference values (PCR) not carried in one of the wanted streams are inserted in the modified transport stream using a separate packet ID. The recorded stream can be passed to a standard decoder with little or no further modification.

Lane, US 6,031,960 discloses methods and apparatus for insuring that a trick play data stream, e.g., a stream of data used for fast forward or reverse playback operation, complies with pre selected data standards and in particular the MPEG-2 standard are disclosed. Various methods are described for generating PCR, PTS and DTS values for a trick play data stream, which is generated from a normal play data steam, and is intended for recording in trick play segments of a tape. The described methods include generating new PCR, PTS and DTS values as a function of the trick play speed at which the data is intended to be read back. Methods and apparatus for correcting PCR, PTS and DTS values read from a tape during trick playback operation are also disclosed. The disclosed methods are directed to generating new PCRs, PTSs and DTSs to provide am MPEG-2 compliant bitstream. The described methods and apparatus are applicable to a plurality of storage and playback devices capable of implementing trick play including compact disks.

None of the prior art, either singularly or in combination, fails to anticipate or render the above underlined limitations obvious. Claims 2-7 and 9-14 are dependent on claims 1, and 8 and therefore dependent claims also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) US 2004/0030967
- b) US 6,643,298
- c) US 5,602,920

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIGAR CHOWDHURY whose telephone number is (571)272-8890. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NC
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/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621